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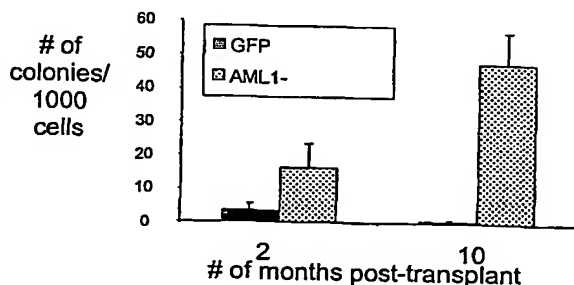
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[Continued on next page]

(54) Title: REGULATION OF SELF-RENEWAL IN STEM CELLS



(57) Abstract: Disclosed are methods for regulating the self-renewal capacity of stem cells such as, but not limited to, primitive hematopoietic stem cells (HSCs) (both mouse and human) by modulating the function and/or activity of target factors that are controlled or altered in their regulation by AML1-ETO expression in stem cells such as HSC. Target factors include, but are not limited to, AML1, C/EBP alpha, and/or PU.1 either individually, or in combinations. Altering the function and/or activity of such target factors in HSC leads to inhibition of HSC differentiation and stimulation of HSC self-renewal capacity. Modulation of target factor activity may be achieved at the level of synthesis of these target factors, interaction with cellular factors required for basal activity or enhanced activity, such as cofactors, degradation or inhibition of their mRNAs, interactions with their DNA binding motifs, or by targeted



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